Secure your web services

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Overall perspective









Time to disable old TLS and SSL

- Time to disable TLS 1.0, SSL 2.0 and SSL 3.0.
- Several security flaws exists:
 - Poodle and DROWN. (web traffic can be intercepted).
 - Apache: http://httpd.apache.org/docs/2.2/mod/mod_ssl.html#sslprotocol
 - Nginx: http://nginx.org/en/docs/http/ngx http://nginx.org/en/docs/http/ngx
 - IIS: http://support2.microsoft.com/kb/187498



Time to disable old TLS and SSL

Padding Oracle On Downgraded Legacy Encryption (POODLE) attack Client Hello. Do you support TLS 1.2? Do you support TLS 1.1? Do you support TLS 1.0? Do you support SSL 3.0? YES Man In The Middle (Attacker)



Use the power in the configuration files

- Restrict the possibility to list content
- Protect sensitive files
 - Apache web servers use the .htaccess file
 - Nginx servers use **nginx.conf**
 - Microsoft IIS servers use web.config



Misconfigured web service



intitle:index.of site:se inurl:hidden





Index of /skspf/hidden/

Index of /skspf/hidden/. Name Last modified Size Description. up Parent Directory 17-Mar-2013 01:49 - directory docs 26-Apr-2019 20:41 - directory ...

Index of /Hidden - EWE AB

Translate this page

Index of /Hidden. Name · Last modified · Size · Description · Parent Directory, -. Ellisys/, 2016-09-13 15:51, -

Index of /Hidden/Ellisys - EWE AB

Translate this page

Name · Last modified · Size · Description · Parent Directory, -. usbex260_compliance_..> 2016-09-13 15:49, 23M. usbex260_gen_soft.zip, 2016-09-13 15:50 ...

Index of /~TDDD47/include/hidden - LiU IDA

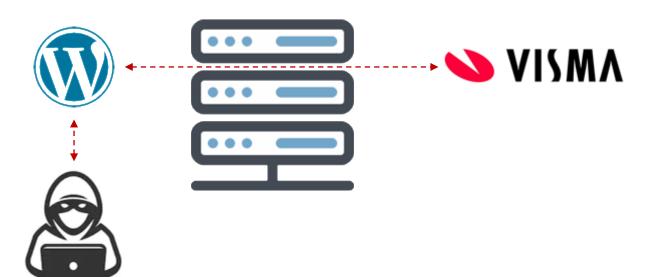
Translate this page

Name · Last modified · Size · Description. [PARENTDIR], Parent Directory, -. [TXT], defaults.sv.shtml, 2009-12-08 09:57, 552. [], menu.sv.dat, 2009-12-08 09:57 ...



Minimize web applications

Avoid using multiple web applications on the same web services





robots.txt and X-Robots-Tag

Use robots.txt and/or X-Robots-Tag



User-agent: *

Disallow: /ljse/

Sitemap: http://www.lj.se/sitemap

Header set X-Robots-Tag "noindex, nofollow"

HTTP metods/verbs

• Disable methods/verbs, PUT and DELETE.

```
telnet 192.168.10.10 80

OPTIONS / HTTP/1.1

Host: 192.168.10.10

HTTP/1.1 200 OK

X-Powered-By: Servlet 2.4; Tomcat-5.0.28/JBoss-4.0.0 (build: CVSTag=JBoss_4_0_0 date=200409200418)

Allow: GET, HEAD, POST, PUT, DELETE, TRACE, OPTIONS
Content-Length: 0
```

Upgrade you're web services

Upgrade you're web services continuously





HTTP/1.1 200 OK

Cache-Control: private
Content-Length: 3583

Content-Type: text/html; charset=utf-8

Server: Microsoft-IIS/7.0

X-AspNet-Version: 2.0.50727

X-Powered-By: ASP.NET

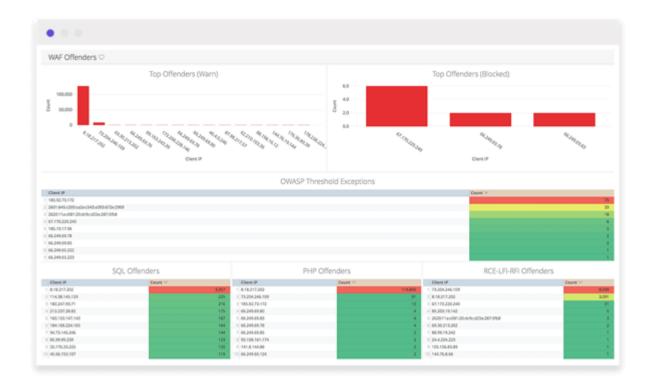
Date: Thu, 16 May 2019 11:58:23 GMT

Inspect external sources

- https://account.psplugin.com
- https://app.eu.readspeaker.com
- ▶ 🗐 https://b2b.cdon.se
- ► 1 https://cdn-sitegainer.com
- ▶ 🎒 https://cdn.cdon.com
- https://cdn.optimizely.com
- https://cdnjs.cloudflare.com
- ▶ http://cdon.dk
- ► http://cdon.fi
- ► http://cdon.no
- ▶ http://cdon.se
- https://cdon.se
- https://code.jquery.com
- http://detectportal.firefox.com
- https://fonts.googleapis.com
- ▶ 🎒 https://help.cdon.com
- https://instagram.com

Monitor web traffic

• Monitor web traffic. Identify abnormal behavior



Scan you're web services









